

Claims

- [c1] 1.A stent comprising a plurality of serpentine bands, each serpentine band having alternating peak regions and trough regions and extending about substantially the entire circumference of the stent, at least one of the serpentine bands having a spline extending therefrom toward a serpentine band adjacent thereto, serpentine bands which are adjacent one another connected one to the other.
- [c2] 2.The stent of claim 1 wherein the spline extends toward a reciprocating spline extending from a serpentine band adjacent thereto, serpentine bands which are adjacent one another connected one to the other.
- [c3] 3.The stent of claim 2 wherein the spline extends from a peak region and the reciprocating spline extends from a trough region.
- [c4] 4.The stent of claim 3 wherein splines extend from a plurality of peak regions on one of the serpentine bands toward reciprocating splines extending from trough regions on a serpentine band adjacent thereto.
- [c5] 5.The stent of claim 4 wherein splines extend from peak regions on more than one serpentine band, each spline extending toward a reciprocating spline extending from a trough region on an adjacent serpentine band.
- [c6] 6.The stent of claim 3 wherein every serpentine band has at least one spline or reciprocating spline extending therefrom.
- [c7] 7.The stent of claim 3 wherein the serpentine bands comprise first serpentine bands and second serpentine bands, the first serpentine bands of a first wavelength and amplitude and the second serpentine bands of a second wavelength and amplitude less than the first wavelength and amplitude, the first and second serpentine bands alternating with one another along the length of the stent.
- [c8] 8.The stent of claim 7 wherein first and second serpentine bands which are adjacent one another are connected one to the other by one or more longitudinal connector.

[c9] 9.The stent of claim 8 wherein each longitudinal connector extends from a peak region on a first serpentine band to a trough region on a second serpentine band adjacent to the first serpentine band.

[c10] 10.The stent of claim 9 wherein the splines extend from sides of peak regions and the reciprocating splines extend from sides of trough regions.

[c11] 11.The stent of claim 2 wherein in an expanded configuration each spline contacts a trough region and each reciprocating spline contacts a peak region.

[c12] 12.The stent of claim 8 wherein a plurality of splines are in substantial longitudinal alignment with one another and a plurality of reciprocating splines are in substantial longitudinal alignment with one another.

[c13] 13.The stent of claim 1 wherein the spline extends from a peak region to a trough region.

[c14] 14.The stent of claim 13 wherein splines extend from a plurality of peak regions on one of the serpentine bands toward trough regions on a serpentine band adjacent thereto.

[c15] 15.The stent of claim 13 wherein splines extend from peak regions one more than one serpentine band, each spline extending toward a trough region on an adjacent serpentine band.

[c16] 16.The stent of claim 15 wherein reciprocating splines extend from trough regions on at least some of the serpentine bands toward peak regions on adjacent serpentine bands.

[c17] 17.The stent of claim 16 wherein every serpentine band has at least one spline or reciprocating spline extending therefrom.

[c18] 18.The stent of claim 16 wherein the serpentine bands comprise first serpentine bands and second serpentine bands, the first serpentine bands of a first wavelength and amplitude and the second serpentine bands of a second wavelength and amplitude less than the first wavelength and amplitude, the first and second serpentine bands alternating with one another along the length of

the stent.

- [c19] 19.The stent of claim 18 wherein first and second serpentine bands which are adjacent one another are connected one to the other by one or more longitudinal connectors.
- [c20] 20.The stent of claim 19 wherein each longitudinal connector extends from a peak region on a first serpentine band to a trough region on a second serpentine band adjacent to the first serpentine band.
- [c21] 21.The stent of claim 20 wherein the splines extend from sides of peak regions and the reciprocating splines extend from sides of trough regions.
- [c22] 22.The stent of claim 11 wherein in an expanded configuration each spline contacts a trough region and each reciprocating spline contacts a peak region.
- [c23] 23.The stent of claim 18 wherein a plurality of splines are in substantial longitudinal alignment with one another and a plurality of reciprocating splines are in substantial longitudinal alignment with one another.
- [c24] 24.A stent with at least one segmented spine, the stent comprising a plurality of serpentine bands which extend substantially about the entire circumference of the stent, each serpentine band having a plurality of peak regions and a plurality of trough regions, at least some of the peak regions having splines extending therefrom toward trough regions, the segmented spine formed of a plurality of peak regions with splines extending therefrom and trough regions longitudinally adjacent the splines, the segmented, the segmented spine extending in a substantially longitudinal direction.
- [c25] 25.The stent of claim 24 wherein the segmented spine extends from one end of the stent to the other end of the stent.
- [c26] 26.The stent of claim 24 wherein serpentine bands which are adjacent one another are connected one to the other via a plurality of longitudinal connectors.
- [c27] 27.The stent of claim 26 wherein one or more longitudinal connectors form part

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